

The Maryland Fruit Grower

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The Bulliest Fruit of Them All (Author Unknown)

Seems like I'm crazy for apples—

Been without any so long;

Now that it's time for the fruit to be prime,

Say, I just burst into song.

Other fruit's good in its season,

But, ah, how I welcome the fall,

That part of the year when the apples are here

The bulliest fruit of them all.

There's tang to the taste of an apple,

A zest like the keen autumn breeze,

With a savor that's won from the smile of the sun

When it ripened the fruit on the trees.

Oh, I've hungered and thirsted for apples,

With the appetite keen of a boy,

And the season which brings in this viand of kings,

For me, is a season of joy.

For autumn means rosy-cheeked apples,

And apples mean cider and pie,

And dumplings and such which you can't praise too much,

No matter how hard you may try.

So here's to His Highness the Apple,

Who comes with the crispness of fall,

When my palate's athrill as I take in my fill

Of the bulliest fruit of them all.

THE CANADIAN SITUATION

Following some official conferences and close cooperation between the U. S. and Canadian apple handlers, it is believed that the Canadian apple import situation is cleared up. Bulletin No. 46 of National Apple Institute indicated that below average crops in some of the Canadian Provinces, would ease the market situation. The Food Ministry will purchase a total of 4 million bushels for processing and fresh apple uses, and there will be some limited exports to Britain, leaving really less apples for home consumption than were used in the 1940-41 season. There is a possibility that some U. S. apples may be exported to Canada, if conditions warrant.

Canada expects a total of 10,800,000 bushels, or 85% of the 1940 crop, and 75% of the 5-year average.

A BRUISE

Coming back to this apple bruising business again, we find that Webster's dictionary defines "bruise" as follows: "to batter, contuse, injure, pound, break, pestle or maltreat".

MULCHING OF ORCHARD SOILS

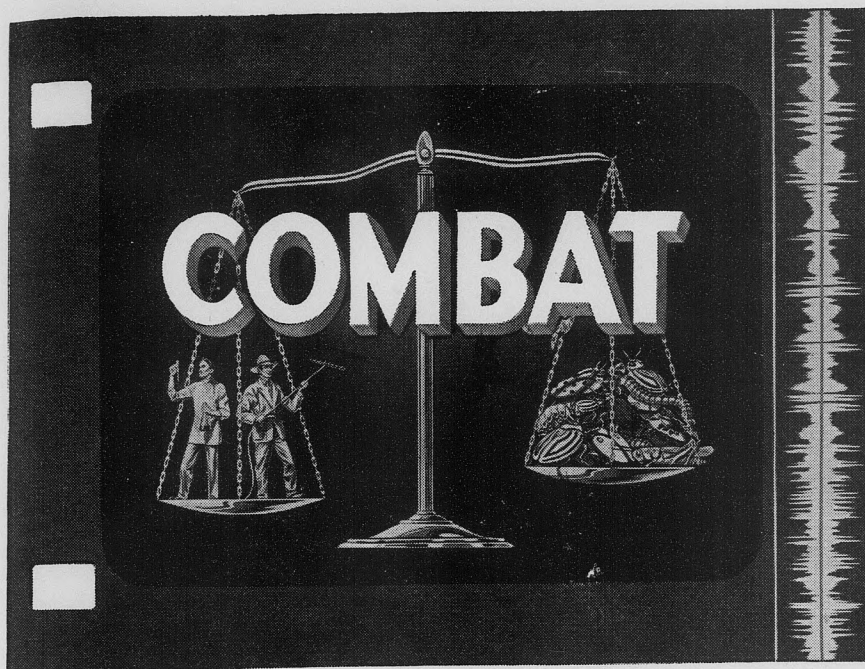
A. L. SCHRADER, *Professor of Pomology*
University of Maryland, College Park, Md.
Address at Senator H. F. Byrd's picnic, August 29, 1941

I have just completed a 14,000 mile auto trip through the southern, western, and northern states during the summer months, in which I had the opportunity to visit many orchard sections and to note their problems. It was a wonderful chance to compare our orcharding with that in other places, and surprisingly to me, I found that all of the orchard sections have one problem in common and that is the problem of maintaining a proper condition of the soil in which the tree will live happily and produce an abundance of high quality fruits. Some years past, I had heard that many of our western and midwestern orchard soils needed no addition of fertilizers or special handling of the soil, as those new soils were deep and fertile, as contrasted to the so-called worn-out soils of the east.

One way to wear out a soil is to cultivate it to death. Even in California, where the soil seems inexhaustible, the growers are turning to other systems of culture to avoid excessive cultivation. One method in use is to sow Sudan grass which is kept mowed during the growing season. Another is the usual grass sod, plus sufficient irrigation to supply the needs of both trees and sod. But the most interesting method in use on several hundred acres of citrus groves, is to keep down all weed growth by spraying the soil with marine oil together with hand-hoeing of the occasional weed that escapes the oil treatment. Under this latter treatment, the undisturbed soil had a hard surface of about an inch in depth, but underneath, the soil was friable and spongy. Oranges and grapefruit under this system were growing and producing 100 per cent.

The westerners still think that the eastern grower is fighting a wornout soil, but they also are now talking in terms of chemical fertilizers, nitrogen, and cover crops that will help build and maintain fertility in their relatively new orchard soils. Some trees which I saw in Washington state, that had received little cultural care, were making as poor growth and showing as much of the poor, yellowed foliage as any of similar poorly-handled orchards in this section. However, the soils of the west and mid-west still have a productive capacity on the average considerably above that of the soils of the eastern Atlantic area. When apple trees will bear as high as 1,500 bushels of fruit per acre on a well-cared-for orchard, under irrigated conditions, it is difficult to imagine that our orchards can ever be made to measure up to such performance.

One big difference between trees under the irrigated conditions of the west and the trees of the east lies in the much greater leaf area that is developed per tree under the western conditions, which means that a tree in the west can size up a larger crop per tree. With all due respect for the matter of differences in climate, it appears to me that a large part of our problem of getting large crops of well-sized fruit lies in our ability to build and maintain so-called fertility in the soils of the east. There is no question that the man who has an orchard on a shallow soil is licked at the start under present margins of profit. Also, the soil with a hardpan or a water-logged condition presents some tough problems, which often are not solved. But considering our deeper, well-drained soils, it has been thoroughly demonstrated that much can be done to build up such soils so that our orchardists can produce better and bigger crops of apples per tree.



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Of the various soil amendments that have been used, such as cover crops, sods, etc., I would like to say that I am firmly convinced that the use of mulch stands out as the best builder of all soil treatments. Eastern growers have been slow to take up mulching of orchards for several reasons, but largely because of the initial cost of mulch material for mature trees, where usually two bales of straw are needed per tree. But why not start with a part of the orchard where mulch is most needed, and most important of all, start with the young orchard where the cost of mulch is a small item and the tremendous response of the tree is unbelievably great? Also, in the case of the young tree, a strawy manure can be used which gives a further advantage in furnishing and making available many of the fertilizer elements that frequently are limited in our soils. A young tree mulched with a manure mulch will not show symptoms of mineral deficiency, such as boron or potash deficiency, as, strangely enough, the use of mulch seems to aid in the liberation of soil elements in the soil layers below the mulch and hence a mulch becomes of greater benefit the longer the tree is under mulch. Some reports have been made that the amount of nitrogen fertilizer applied per tree can be reduced after the mulch is well established in its effect on the tree. In fact, in my own experience, the use of a rye straw mulch on a peach orchard in early fall resulted the following year in the same effect as a liberal dose of nitrogen fertilizer. Some other effects of mulch which I have noted, have been in the improved finish and color of the fruits, which have to be seen to be appreciated. Also, some growers have reported a great decrease in cracking of Stayman apples, as for instance, the McCain orchard at Frederick, Md., where on a gravelly open soil fruit cracking was formerly a serious problem, but a few seasons of mulching reduced the cracking to a small percentage. In a study which we are making in Maryland, on the so-called skin-cracking of York Imperial, our treatments with a heavy straw mulch with some mixture of manure has resulted in a marked reduction of cracking and great improvement of finish.

Now basically, just why do I consider mulching as the best soil amendments? If we consider the fundamentals of what constitutes soil fertility for the orchard, we find that a fertile orchard soil has four essentials: namely, moisture-holding capacity, available mineral elements, adequate aeration of the root zone, and organic matter in sufficient amounts to make the fertility of the soil available at essential times. In meeting these requirements, a good mulch, well established, has the power to decrease moisture loss, improves aeration, adds organic matter and renders mineral elements more available. Above all, the soil is left undisturbed so that the organic matter is not burned out by cultivation and probably less leaching of mineral elements occurs than with any other system of culture.

In conclusion, let me advise growers on the following points:

1. Be sure to mulch the young tree, preferably with a strawy manure mulch.
2. Mulch at least a part of the bearing orchard each year with sufficient mulch, and renew every two years.
3. A mulch on light sandy soil is difficult to maintain.
4. A mulch on a heavy wet soil may actually decrease color of fruits.
5. Be careful with fire in a mulched orchard.
6. Consult with the U. S. Biological Survey or local State agencies on mouse control.
7. Grow your own mulch material on areas outside the orchard.

RING FERTILIZATION



... MAKES RICH FATHERS BUT POOR SONS

Ring fertilization—with a starved cover crop or none at all outside the fertilized ring—means rapid impoverishment of the humus supply; increased liability to erosion; and premature failure of the orchard.

Orchards regularly fertilized with **GRANULAR 'AERO' CYANAMID**—the lime-nitrogen fertilizer—broadcast at the rate of 400 pounds per acre, receive nitrogen enough for the trees and cover crop; and lime enough to neutralize the soil acidity resulting from sulfur sprays, dusts, and acid-residue fertilizers.

Write for Leaflet F-181



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APPLE TREE REMOVAL

There is still time for growers to sign up under the Agricultural Conservation Program for tree removal practice under the Soil Conservation Act. See your County Agent. The program provides for payment of 30c per tree for trees 5 to 12 inches in diameter, and 50c per tree for trees over 12 inches in diameter. Trees under 5 inches draw no practice payments. Trees must be live, permanent trees, not filler or semi-filler trees. Payment may also be received for application of mulching material; for top-dressing cover; liming; plowing under cover crops; planting on contour, etc. Limit of total payments are set by the acreage and the number of credits that the individual orchard may receive in any one year. Your County Agent can explain the plan in detail. As far as records show, there were 86 fruit growers in 17 counties of Maryland who removed a total of 13,772 trees during the past year under the Act, and there were also thousands of trees removed independent of the sign-up under the Act.

APPLE PUBLICITY

Through the cordial cooperation of regional apple advertising organizations, and the National Apple Institute, working with commercial concerns, there is a lot of good publicity being given to apples. General Mills is featuring French Apple pie, in current ads. Over six million folders of this recipe have been placed in bags of Gold Medal Flour. Full page ads in color are running in Saturday Evening Post, Ladies' Home Journal, Good Housekeeping, Farm Journal, and Successful Farming, with a total circulation of over twenty million. There will also be a "surprise ad" running during National Apple Week, at a cost of \$100,000.00. Pillsbury Flour Mills ads are featuring Cranberry-Apple Pie in several national magazines with twenty-three million circulation. These firms also are carrying national radio network programs. Armour & Company will run ads in seventy cities featuring apple rings and sausage during National Apple Week. A national glove manufacturer has "apple color" gloves, whose displays will include apples and cider along with displays of gloves. McCall's and Good Housekeeping are featuring color pages of apple desserts. The Atlanta Constitution, a daily paper, recently featured an apple page, well gotten up. This is a result of Appalachian Apples working the Southern Markets. Paul Stark recently spoke on apples, during National Farm and Home Radio Hour. Apples are "going places" in the publicity world. Isn't all this worth something to our business? Why not make every effort to subscribe to Appalachian Apples and help this work along? Write Appalachian Apples, Martinsburg, W. Va., and tell them that you want to subscribe 1c a bushel on apples that you are going to sell, that grade U. S. Utility and above. This doesn't cost—it pays.

COLD STORAGE HOLDINGS—OCTOBER 1

The Government Cold Storage report states that on October 1, there were 57,000 barrels; 2,995,000 Western boxes; 4,205,000 Eastern boxes and 1,771,000 bushel baskets in storage. This is 228,000 more bushels than were reported in storage on October 1, 1940.

A farmer tried to tell a city woman how he shocked his wheat, but she wouldn't listen.

READ THIS

For the past two years or more, growers hauling fruit to some of the large city markets have been compelled to pay plenty for having their fruit unloaded, and not being allowed to unload it themselves. This has added to costs, as well as loss of time. If the practice is considered illegitimate, something should be done.

There is now in Congress, the Walter Bill (H. R. 5218) which is designed to give the U. S. Courts jurisdiction in work-stoppages. Mr. W. S. Campfield, Secretary, Virginia State Horticultural Society, has asked permission to testify at the hearing on this Bill. Write your Congressman for a copy of the Bill. Read it. Then if you have had any experience of being held up in unloading, get the complete details and write to Mr. Campfield, Staunton, Virginia. Maybe they will want you to testify. All testimony possible should be mustered. If this thing is wrong, only the growers can make it right by going after it. We can't "let George do it." Better attend to this now. It calls for united action, and the opposition is surely united.

TIMELY BREVITIES

Through error, Delicious variety was omitted from the list of apples to be included in the Apple Exhibit in January at Baltimore. Delicious is on the list.

A bad windstorm struck Illinois, Indiana, Ohio, Michigan, and Western New York on September 25th, blowing about 10 million bushels of apples from the trees. Immediately the Grocery Chains, and the Government agencies got busy, trying to salvage the crop. The Chains will run "specials" in their stores and S.M.A. will buy a goodly amount of these apples for school lunch program, direct relief purchases, and will promote sales under the Stamp Plan. We sympathize with our fellow-growers in these states where losses have occurred, and hope that their sales results will be as good as they have been in other like disasters, such as the Missouri storm and the New England hurricane. Someone made the unkind remark that this storm-injured stuff was no worse than some of the picked and bruised apples in general orchard areas.

It will soon be time to plan our mouse control work, (more about this, next month), also to figure on tree removal. No use to keep a lot of "boarders" around. It costs more to keep these trees than it does to remove them. Since 1930 there has been a decrease of 46.2% in fruit tree acreage in Maryland. This includes all kinds of fruits and all types of orchards, according to the Census.

By the way, have you cleaned and drained the sprayers? Can't tell when it may freeze, and it's awfully easy to forget.

FEEDING OF APPLE CULLS AND POMACE TO LIVESTOCK

Any growers interested in information regarding feeding of apples and pomace to livestock may obtain the following bulletins by writing the Experiment Stations in the States mentioned:

Washington Bulletins 270 and 291—Pullman, Washington.

Utah Bulletin 101—Logan, Utah.

Massachusetts Bulletin 205.

Virginia Bulletin 203—Blacksburg, Virginia.

Idaho Bulletin 150—Moscow, Idaho.

What is Your Spray Problem ?

Let B. G. Pratt Sprays Help You

SCALE—**Scalecide** is the most effective and safe scale spray ever devised. It also cleans up cankers and improves the general vigor of the trees. Add 1 gallon **Straitar** to each 100 gallons of your **Scalecide** spray for stubborn cases of Oyster Shell, Scurfy scale and Peach Lecanium. For a low cost, safe dormant oil emulsion, use Pratt's **Spra-Cream**. It fills the bill as nothing else will do.

APHIS—Kill dormant rosy aphid eggs with the above **Scalecide** and **Straitar** spray applied in the delayed dormant season; or use 3½ gallons **Spra-Cream** with 1 pound Dow's Dinitro Dry Mix per 100 gallons in the dormant season. One pint D-X added to your prepink or pink spray before the aphid curl the foliage is effective and less expensive than nicotine.

RED MITE—Either **Scalecide** or **Spra-Cream** as a delayed dormant spray controls this troublesome pest. When using **Spra-Cream** with Dinitro it is best to increase the dilution to 4 or 4½ gallons for red mite. Growers using **Spra-Cream** alone in the delayed dormant period for red mite need not stop spraying when the buds burst, but can cut the dilution to 2 gallons and continue spraying with safety and effective results.

MEALY BUG—After thoroughly scraping your trees, either mechanically or with a special gun on your sprayer, spray on a warm day in the dormant season with 6 gallons of **Scalecide** and 3 gallons **Straitar** or 4 gallons **Spra-Cream** and 3½ gallons **Straitar**. Use plenty of force.

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